



PEBBLE WATCH

July 2011 | BBNC

Inside this issue

This issue of Pebble Watch focuses on questions related to the U.S. Environmental Protection Agency's (EPA's) ongoing watershed assessment for the Bristol Bay region, including:

- What is a watershed?
- What are some of the authorities granted to EPA under the Clean Water Act?
- What happens next?

About Pebble Watch

Pebble Watch is an impartial, educational and fact-based initiative of the BBNC Land Department to disseminate information regarding the proposed Pebble Mine project to BBNC shareholders and interested parties. Pebble Watch does not attempt to integrate or interpret data; this would occur during an Environmental Impact Statement process. Instead, we seek to help BBNC shareholders better understand data by providing summaries as well as context, such as how the data may be used in the permitting process and how it relates to regulatory benchmarks.

Visit us online

Visit www.pebblewatch.com for updated information related to the Pebble project, links to relevant data, and a calendar with upcoming events. You'll also find past issues of this newsletter.

Produced by the
BBNC Land Department
Questions?
Call (800) 426-3602

What is the Watershed Assessment?

In February, the U.S. Environmental Protection Agency (EPA) announced plans for a scientific assessment of the Bristol Bay watershed to determine how large-scale developments in the region might impact water quality and salmon populations.

The effort came after native tribes, organizations and corporations—including Bristol Bay Native Corporation—asked EPA to use its authority under the federal Clean Water Act to prohibit certain discharges from the proposed Pebble mine. The effort has been ongoing since.

Though the Bristol Bay watershed contains nine major rivers, EPA's focus will be on the Nushagak and Kvichak river drainages, the main areas in the watershed open to large-scale development. This area of interest also includes Iliamna Lake and the communities surrounding it.

EPA has said its assessment will seek to answer three main questions:

- Is the Bristol Bay salmon fishery the one-of-a-kind, world-class fishery that it is depicted to be?
- What are the potential impacts to Bristol Bay's salmon fishery from large-scale development activities such as hard rock mining?
- Are there technologies or practices that will mitigate these impacts?

EPA watershed assessment team members have expertise in fisheries biology, mining, geochemistry and anthropology, and are reviewing a wide range of existing information. This includes documents compiled by the State of Alaska, federal resource agencies, tribes and scientific institutions from around the world. Sources include peer-reviewed research published in scientific journals, agency staff, tribal elders and input from other experts.

The team is also considering informal input, such as comments gathered from visits to Bristol Bay communities in early June. (See our story, "EPA Visits Bristol Bay," back page.)

EPA has pledged to keep its process open and transparent and is committed to gathering community input. "We realize what an important issue Bristol Bay development is for area villages, and there are a lot of strong feelings around it," said Richard Parkin, Senior Manager of EPA's Bristol Bay watershed assessment team. "The assessment is an opportunity for us to get the whole story in one place. As we undertake this science-based process, we are also engaging with local communities at every step of the way. Their input and experience is an important part of the picture."

To date, EPA has set out a basic process and timeframe. (See the table titled "Watershed Assessment Process.") EPA representatives emphasize that the process is not rigid and will take into account input from a wide range of sources.

“Residents spoke eloquently about their concerns that mining could cause them to lose the fish and game they have depended on for generations.”

—Dennis McLerran,
Region 10 Regional
Administrator, in the EPA blog
Greenversations



How to get involved

Taking part in the watershed assessment is as easy as sharing your thoughts and concerns related to the watershed—or letting EPA know of resources, including studies or bearers of traditional knowledge.

Take action!

- **Stay up-to-date:** EPA's Bristol Bay watershed assessment web page offers details about the assessment, including a work outline, community involvement plan, regular updates and announcements about upcoming events, and a sign-up for EPA's mailing list. Also, visit www.pebblewatch.com regularly for updated information, including links to EPA assessment resources.
- **Share your knowledge:** Contact EPA staff (see "EPA Contacts," below) with any site-specific scientific data that you or someone you know may have helped collect. Desired studies include those related to shellfish and fishery areas, municipal water supplies, wildlife, recreation, and subsistence and cultural information.
- **Watch for advertised public meetings and comment periods:** If this is an issue you care about, mark your calendar with reminders now to check EPA's site for meeting and comment period dates (now planned for Spring 2012). Comments directly related to the three major questions being asked in the assessment are likely to be of most interest.
- **Ask questions:** Contact EPA with questions you may have that are not already addressed online.

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watershed assessment Process

This chart is based on information from EPA planning and work documents posted online, as well as input from EPA's science team. Dates represent EPA's most current estimates.

What	How	When
Information-gathering	EPA representatives request and compile a wide range of information, including research from scientific journals and traditional ecological knowledge from elders.	Occurring now (Summer-Fall 2011)
Draft document	EPA's Bristol Bay watershed assessment team reviews information and assembles a draft watershed assessment document.	Fall 2011/ Winter 2011-2012
Public meetings	EPA's team solicits input on its draft in official public meetings in Anchorage and communities within the Bristol Bay region.	Spring 2012
Public comment period	Members of the public submit comments about the draft watershed assessment document. (Expected to last about 30 days.)	To be announced/ advertised
External peer review	Scientists outside the agency review EPA's draft report and provide review comments. EPA may do additional analysis based on this input.	Late 2012
Final watershed assessment document	EPA releases its final version of the watershed assessment document for public review.	Late 2012
Public meetings	EPA meetings in Anchorage and within the Bristol Bay region address available mitigation technologies and practices "and how to incorporate these protective actions ... using either 404(c) or other federal authorities."	To be announced/ advertised

How can EPA influence the permit process?

Veto

EPA has veto authority of permits issued by the US Army Corps of Engineers® (USACE) for releasing dredge or fill material at specific U.S. sites. Under **Section 404(c)** of the Clean Water Act, EPA may invoke a veto before a permit application is submitted, while it is pending, or after it has been issued, if the agency determines the discharge will have "unacceptable adverse impacts on water supplies, shellfish beds and fishery areas, wildlife, or recreational areas."

As of 2010, EPA had used this veto power 13 times; three of the vetoed applications still resulted in permits after applicants modified plans for discharge release.

EPA's 404(c) authority is now being challenged in Congress by Alaska Congressman Don Young. His bill, H.R. 517, which would amend the Clean Water Act to eliminate this authority, was referred to subcommittee in January and awaits further action.

Dispute

Section 404(q) of the Clean Water Act is a dispute resolution process that may be used by EPA after a permit decision is made. If EPA disagrees with USACE's decision, this process requires the Department of the Army to employ a higher level of review. It may only be used if a project is likely to cause "unacceptable adverse effects to aquatic resources of national importance."

Factors used to determine "national importance" include: economic importance of the resource, rarity, uniqueness, or importance of the resources for the protection, maintenance, or enhancement of the nation's water quality. From 1982 to 2005, EPA requested a higher level of review on 20 of an estimated 1.6 million permit applications. Fewer than three percent of all U.S. permit requests are denied, usually as a result of the applicants refusing to change design, timing or location of the proposed activity.



What is a Watershed?

A watershed may sound all wet, but you don't have to be a fish to live in one. In fact, each and every one of us lives within a watershed. Simply put, a watershed is a term used to define an area from which all the water drains to a common place – a river system, reservoir, underground aquifer, or other body of water. Watersheds are also sometimes called drainages, drainage basins/sub-basins, or catchment areas.

Watersheds can be large or small and aren't constrained by state or national borders. Within the Bristol Bay area, for example, the largest watershed in the region is defined as the area from which all water ultimately drains to Bristol Bay. More locally, however, a watershed, drainage or sub-basin might be defined as all water that drains to a particular river or lake.



Photo: BBNC

Not all contamination is caused by development. Natural sources of contamination, such as naturally occurring pathogens, organic chemicals, metals, or excess nutrients, also exist.

The value of a watershed-wide perspective on issues such as habitat is being increasingly recognized for the “big picture” outlook it provides for land management decisions.

In communities around the country, volunteer groups have formed to maintain and improve watershed health. The EPA offers an “Adopt a Watershed” program for individuals or groups to become active participants on a local level.

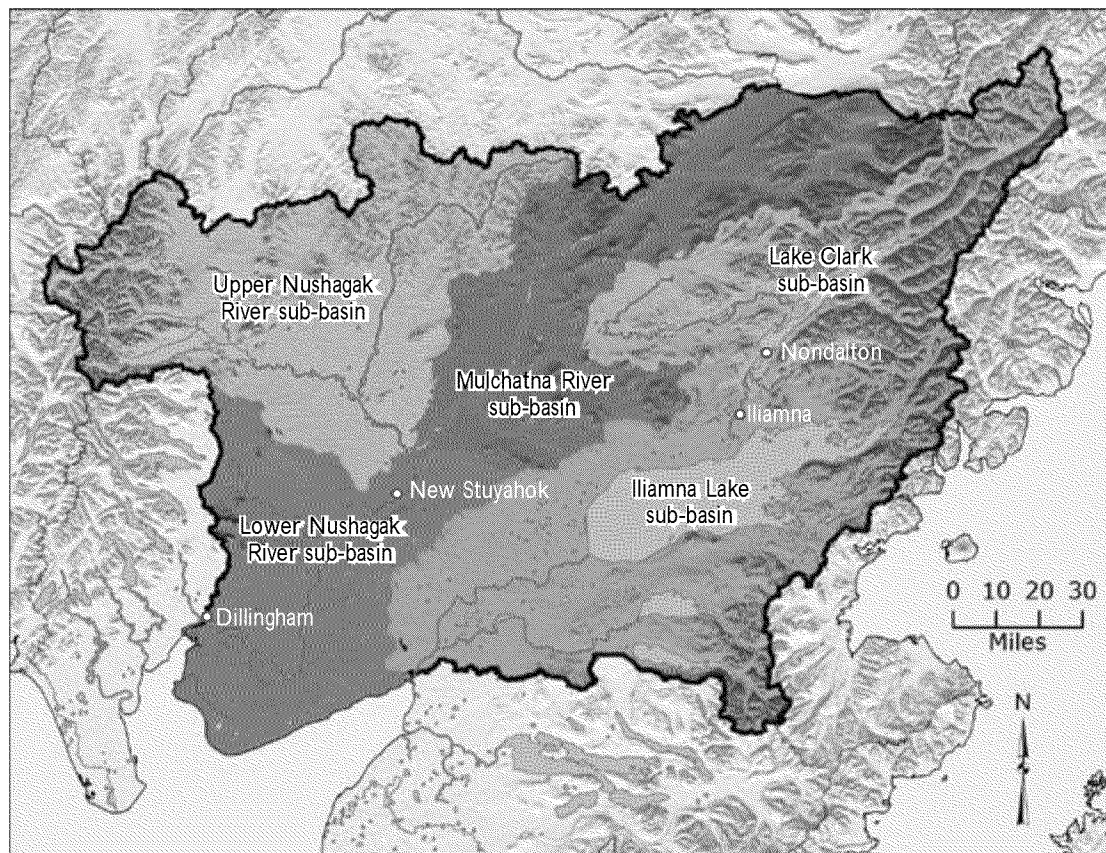
Why are watersheds important?

A healthy watershed is a critical resource for both human life and wildlife. Watersheds provide all of our drinking water and irrigation, habitat for fish and wildlife, and transportation routes, such as the rivers that still serve as the major thoroughfares in many parts of rural Alaska.

Development activities can affect watershed health. For example, developments such as roads and parking lots replace large areas of vegetation, which increases runoff and erosion. Runoff can also contain pollutants such as oil, bacteria, metals and sediment that ultimately affect water quality.

Scientists with the U.S. Geological Survey Toxic Substances Hydrology Program approach watershed health from another angle: research. The program, which is dedicated to studying and better-understanding contamination problems, has developed a “watershed approach” to help managers restore watersheds affected by historic and active hard rock mining. Such an approach enables realistic restoration goals and resource investments where they will do the most good.

Visit www.pebblewatch.com for links to educational resources about watersheds.



Above: Aerial view of Frying Pan Lake, south of the proposed Pebble mine.
Photo: Bristol Industries, LLC

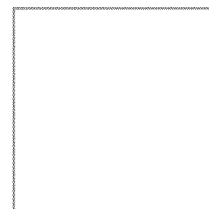
Left: This map shows five sub-basins within the Bristol Bay watershed that will be the focus of EPA's watershed assessment.
Graphic: Bristol Industries, LLC



PEBBLE WATCH

**Bristol Bay
Native Corporation**

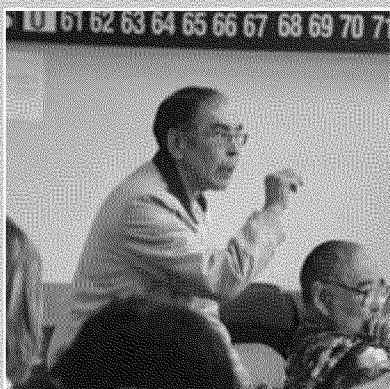
111 W. 16th Avenue, Suite 400, Anchorage, AK 99501



inside: tHe bristol bay region watershed assessment

“This incredible trip to Alaska... left an indelible impression and a deepened respect for the people and their way of life, as well as the pristine beauty of Alaska’s waterways.”

—Nancy Stoner, Acting Assistant Administrator for EPA’s Office of Water, in EPA’s online blog, Greenversations.



EPA Visits Bristol Bay

Pebble Watch attended EPA watershed assessment updates and other meetings held June 2 and 3 in the Bristol Bay region. The visits provided a forum to speak with top assessment decision-makers—including Richard Parkin, the assessment’s lead manager; EPA Administrator Lisa Jackson’s senior policy adviser, and representatives from EPA’s Seattle-based Region 10.

In Ekwok, community members told EPA guests about the high cost of gas and shipping to the Bush, and the importance of clean water to their diet. Explained village administrator Richard King: “You guys go to your grocery store; we go to the river, to the woods.”

“That’s our dinner table,” echoed a man in New Stuyahok, where the meeting attracted about 40—including elders assisted by Yup’ik translation over headset. Residents thanked EPA, then described living off wild game, such as moose and caribou, their enjoyment of spawned-out salmon (“a delicacy”), and the health benefits of a wild diet.

BBNC then joined a boat tour up the Nushagak River to the Kaktuli, which included a



EPA officials hear out New Stuyahok residents on their Bristol Bay watershed concerns.

Photos: Bristol Industries, LLC

dinner break of subsistence foods hosted in a warm cabin and a hike to a bird’s eye view of the Pebble prospect area and local watershed.

The watershed assessment update in Dillingham immediately followed a mining information session. About 80 attended, including former Alaska first lady Bella Hammond and local State Representative Bryce Edgmon. Another dozen attended a mining information session in Newhalen.

Keep up to date on events affecting the proposed Pebble project:

www.pebblewatch.com